

ABSTRACT OF THE DISCLOSURE

A semiconductor-device fabrication method includes the steps of: forming a first hydrogen barrier film over a substrate with a protective insulating film interposed therebetween; forming a capacitive lower electrode on the first hydrogen barrier film; forming, on the first hydrogen barrier film, a first insulating film which covers the side of the capacitive lower electrode and from which the surface thereof is exposed; forming a capacitive insulating film of an insulating metal oxide covering the boundary between the capacitive lower electrode and the first insulating film; forming a capacitive upper electrode on the capacitive insulating film; forming, on the first insulating film, a second insulating film covering the capacitive insulating film and the capacitive upper electrode; forming a sloped portion in the second insulating film corresponding to an edge of the capacitive upper electrode; and forming a second hydrogen barrier film on the second insulating film having the sloped portion.